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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/319,142	07/29/99	WINTER	E 45/235LI/SC

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EXAMINER

LEE, L

ART UNIT	PAPER NUMBER
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1772

DATE MAILED:

8
07/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.
09/319,142

Applicant(s)

Winter et al

Examiner

Laura L e

Group Art Unit
1772



☒ Responsive to communication(s) filed on Jan 31, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 16-31 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 16-31 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what type of metal is a hard metal. Is a hard metal also a precious or refractive metal? How hard must the metal be to be considered a hard metal?

3. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 21, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

4. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 25 recites the limitation "the pyramid angle" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is also unclear what pyramid angle claim 25 is referring to. Is it the angle created between the depression and the substrate, is it the angle between the depression and normal to the substrate or otherwise?

It is unclear what "plat-shaped support" is referring to. Assuming that it is referring to the "plate-shaped support" of claim 16, it is still unclear in what manner the support differs from the pyramid angle.

5. Claim 26 recites the limitation "the pyramid angle" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is also unclear what pyramid angle claim 26 is referring to. Is it the angle created between the depression and the substrate, is it the angle between the depression and normal to the substrate or otherwise?

6. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27 recites the limitation "wherein grain boundaries" in line 1. There is insufficient antecedent basis for this limitation in the claim.

It is unclear what the grain boundaries are and how they are aligned in a column shape.

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 16-18, 20, 22-27 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nassau et al, US 5882786 in view of Gregory, US 2521846.

Nassau et al discloses synthetic gemstones which are produced by growing single crystals of silicon carbide, fashioning the silicon carbide into gemstone cores, and thereafter depositing a thin coating of diamond on the core. See abstract. The color of the diamond coating may be achieved by doping. See column 4, lines 11-39. The table of the silicon carbide gemstone core may be formed parallel to the basal plane since this orientation simplifies the production process, or it may be oriented so that the diamond deposition occurs on the carbon face instead of the silicon face, thereby facilitating the initial nucleation and uniformity of the diamond coating. See column 5, lines 12-27.

In Claim 27, the limitation that the grain boundaries of the precious stone layer are aligned in a column shape is rejected as an inherent property. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. MPEP 2112.01.

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Nassau et al, however, fail to disclose a plate-shaped support having a surface with at least one pyramid-shaped depression.

Gregory teaches a composite glass and metal article with internal fractures forming light-reflecting facets and surfaces imparting gem-like or jewel-like properties. See column 1, lines 1-8. The flat metal vessels, which would appear to be inherently a hard metal, may have pyramid-shaped recesses forming geometric extensions of the sheet proper. See figures 10 and 11 and column 4, lines 1-7.

It would have been obvious to use the tray taught by Gregory with the synthetic gemstones taught by Nassau et al if a superior tray with gem-like properties was sought. One would have been motivated by a reasonable expectation of success because both inventions involve the creation of gem-like articles.

Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. In re Brown, 459 F. 2d 531, 173 U.S.P.Q. 685 (C.C.P.A. 1972); In re Fessman, 489 F. 2d 742, 180 U.S.P.Q. 324 (C.C.P.A. 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. In re Fessman, 489 F. 2d 742, 180 U.S.P.Q. 324 (C.C.P.A. 1974).

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Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985) and MPEP § 2113. In this case, the method by which the pyramid-shaped depression is formed does not render the products of claims 22-24 and 29 patentably distinct from the prior art.

It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947) (Claim was directed to an advertising display device comprising a bottle and a hollow member in the shape of a human figure from the waist up which was adapted to fit over and cover the neck of the bottle, wherein the hollow member and the bottle together give the impression of a human body. Appellant argued that certain limitations in the upper part of the body, including the arrangement of the arms, were not taught by the prior art. The court found that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art.). Also, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the

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claimed container was significant.). In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to change the orientation of the silicon wafer in order to change the light reflecting properties of the wafer, to change the angle of the pyramid shaped depression in order to change the light reflecting properties caused by the reflection or to change the shape of the support to be curved for aesthetic purposes. One skilled in the art would have been motivated to do so in order to manipulate the shape for any specific intended use.

9. Claims 19, 21 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nassau et al in view of Gregory as applied to claim 16 above, and further in view of Lampert et al, US 5431028.

Nassau et al and Gregory disclose generally all that is claimed except where the support is comprised of a precious metal and the pyramid shaped depressions have mirror surfaces.

Lampert et al teaches a metal jewelry article with one or more artificial diamond baguettes formed therein and where faceted reflective surfaces are angled and positioned to reflect light in a manner which simulates a diamond. See abstract. The jewelry article is formed of a precious metal that has reflective surfaces. See column 4, lines 1-16. Lampert et al further teach that the choice of metal and size of indentations and faceted surfaces may be changed to suit the desired end use. See column 1, line 56 to column 2, line 2.

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It would have been obvious for one of ordinary skill in the art to substitute a refractive metal for the precious metal used in Lampert for aesthetic purposes.

It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the use of the metal jewelry article made of precious metal with reflective surfaces with the gem-like articles taught by Nassau et al and Gregory because the reflective surfaces cause artificial diamonds to look more authentic. One would have had a reasonable expectation of success because gem-like articles are frequently used in metal jewelry articles.

Conclusion

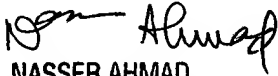
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Lee whose telephone number is (703) 308-0087. The examiner can normally be reached on Monday through Thursdays from 9:00 am to 6:30 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ellis Robinson, can be reached on (703) 308-2364. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

The telephone number for the receptionist is (703) 308-0661.

LLL

July 15, 2000


NASSER AHMAD
PRIMARY EXAMINER
GROUP 1300
TC-1700